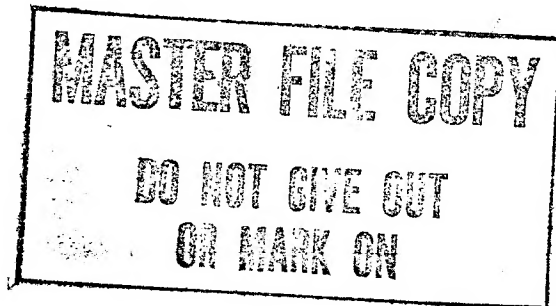




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## China: New Weapons for the Conventional Forces

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A Research Paper

DIA review  
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# **China: New Weapons for the Conventional Forces**

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**A Research Paper**

This paper was prepared by [redacted]  
[redacted] of the Office of East Asian  
Analysis. Comments and queries are welcome and  
may be directed to the Chief, Defense Issues Branch,  
China Division, OEA, [redacted]

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**China: New Weapons for the  
Conventional Forces**

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**Key Judgments**

*Information available  
as of 1 August 1983  
was used in this report.*

The argument advanced by some China watchers that Beijing lacks both ability and resolve in the area of defense modernization—especially in providing needed weapons for the conventional military forces—is beginning to lose much of its validity. Pessimistic assessments in the late 1970s of China's prospects for military modernization grew from a lack of visible progress in weapons development and Beijing's reluctance to sign major contracts for foreign weapon systems after lengthy negotiations. This paper takes a fresh look at military modernization using newly available evidence on defense programs and cataloguing recent, notable advances in development and production of defense weaponry. It places China's military equipment modernization within the context of the overall defense modernization effort and assesses the implications for China, its neighbors, and the United States.

The People's Liberation Army (PLA) has begun to procure a new generation of conventional military weapons and equipment. Other weapons long in development have progressed to a testing or trial production stage and follow-on programs are already in research. None of the recently fielded systems is as modern as new conventional weapons in Soviet or Western arsenals, but they are products of China's own arms factories and represent a significant step forward long awaited by the Chinese military:

- The Army has an improved tank, an early generation antitank guided missile, and a new antitank rocket and is procuring more armored personnel carriers and other tracked systems for mechanized units. It is also about to receive tactical air defense missiles for the first time and is testing a new self-propelled gun.
- The Air Force is acquiring, in limited quantities, its first new fighter in 10 years and is improving existing fighters with better avionics and weapons. Newer air-to-air missiles are on tap, and more advanced fighters are in the early stages of development and probably will not be available for several years.
- The Navy is getting a few additional nuclear-powered attack submarines, is improving its older diesel submarines, and is developing a diesel submarine that carries antiship missiles. It is also improving fleet air defense and antisubmarine warfare capabilities.

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The improvement in China's ability to develop and produce weapons is on track with Beijing's goal of self-sufficiency in defense modernization. Although difficulties remain, the recent successes are encouraging to China's military and civilian leaders, who over the past six months have renewed pledges that China will remain largely independent of foreign sources of military hardware. In our view the Chinese will continue to resist importing large quantities of expensive weapons.

We believe Beijing will still seek increased contacts with Western manufacturers to gain access to advanced military technology. Beijing has shown renewed interest in American weapons and technology and recently requested US permission to purchase the F-100 jet fighter engine. We believe the Chinese will buy production rights for selected items, but they will try to avoid terms that require the purchase of large numbers of finished products. China will also continue to seek technology illegally and attempt to acquire copies of advanced Western and Soviet weapons through third countries.

Although new weapons are deployed first with units opposing Soviet forces, they have not appreciably closed the gap between Chinese and Soviet capabilities. We believe China will continue to rely on its small nuclear force and a combination of terrain and a strategy of defense in depth as a deterrent to a Soviet attack.

Because China still lacks the amphibious lift capability to take Taiwan by force, the current level of modernization will have little impact on the balance in the Strait. We believe, however, that by the early-to-mid-1990s newer weapons will significantly enhance China's capabilities against Taiwan's air and naval forces.

The Chinese forecast no rise in military spending through 1985, but money probably will be available for research and development and for production of the small and relatively inexpensive weapons currently receiving highest priority. China has sharply reduced spending on procurement of older military equipment, and the savings can be applied more selectively to improved systems.

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The speed of modernization is in large measure governed by the development and production process, which we believe will improve as China expands its experience and technology. New weapons have languished for years in development, and production of more sophisticated items often suffers from problems in quality control. In comparison with similar Soviet and US programs, Chinese weapons can take twice as long to get from the drawing board to the field.

We believe, however, that the prospects for military modernization over the long term hinge to a considerable degree on Beijing's success in building up the economy and improving the industrial base. Military leaders appear resigned to current strictures on spending and on the need to improve civilian areas of the economy and science and technology. Barring significant increases in tensions, they will be forced to accept a comparatively low-cost program of selective equipment upgrades through the current five-year plan (1981-85). As better weapons become available, and as the economic climate improves, we expect the PLA will increasingly lobby for higher defense allocations.

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## China: New Weapons for the Conventional Forces

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### Modernization Effort

Within the confines of limited resources and amid serious distractions, Beijing has persisted over the years in its stated objective of modernizing the PLA.<sup>1</sup> Despite their oft-repeated and long-held belief in the primacy of human factors in war, China's leaders also have increasingly emphasized in articles for army and party publications the importance of advanced weapons in modern warfare. There have been many difficulties that have impeded rapid progress in Beijing's quest for those weapons:

- The Chinese were slow to acquire the facilities and train the personnel needed for research and development of advanced weapons. Soviet aid in the 1950s concentrated on the manufacture of existing Soviet systems rather than on R&D.
- The complete loss of Soviet aid after 1960 dashed Beijing's hopes of getting foreign assistance in creating a solid research foundation for the development of weapons for all services and led China to focus on strategic missile and nuclear weapon programs to the detriment of conventional weaponry.
- Pressures in the 1960s arising from the Vietnam war and the growing threat from the Soviet Union created a need to produce large quantities of older model, conventional Soviet weapons—relatively fast means of building up military strength—than to develop newer systems.
- Finally, 10 years of internal problems—school closures, work stoppages, and violence—caused by the Cultural Revolution interrupted numerous defense projects and severely set back the education of scientists, engineers, and technicians.

<sup>1</sup> This paper focuses on the modernization of China's conventional military forces—the ground, air, and naval forces—which combined are a key element in the Chinese deterrence of attack across any border.

Strategic force development was largely protected from the vicissitudes of the 1960s and 1970s. The Chinese apparently concluded that a credible Chinese nuclear force that could retaliate, if attacked by growing Soviet and US nuclear arsenals, would bring more security than modern conventional forces. That strategy did not bring quick results, but it has given China a small but steadily growing force of nuclear-tipped missiles that the Chinese believe would survive a Soviet first strike. It has also led to the apparently successful testing of a nuclear-powered ballistic missile submarine and the solid-propellant missile that it will carry. Only France, the USSR, and the United States preceded China in such developments (the United Kingdom builds its own SSBN, but buys the missile from the United States). For China's conventional forces, however, the trade-off has been an inevitable slippage in deployment of modern weapons and equipment.

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### Deng's Program

The calmer political atmosphere in China since Mao's death in 1976 and the emergence of reform leaders such as Deng Xiaoping have buoyed prospects for modernizing the conventional forces. Deng reportedly drew new blueprints for defense modernization in the mid-1970s. At a meeting of the General Staff in January 1975, Deng—then Chief of the General Staff—delivered a speech titled "The Army Needs Consolidation." He followed up in July with a speech to the Military Commission of the Chinese Communist Party on the "Tasks in Consolidating the Army."

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An outline of Deng's program first surfaced in a party document, (Central Directive 18) in 1975. It set down a straightforward ambitious agenda:

- Returning the PLA to the barracks by removing it from the political role it took during the Cultural Revolution.

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- Streamlining the forces by reducing the number of overaged, unfit, and excess personnel.
- Creating a more professional force by recruiting better qualified people, improving military education, and introducing more rigorous and sophisticated training.
- Equipping the forces with improved weapons. [ ]

The program was strongly attacked by the Gang of Four and scrapped. With Deng's return to power late in 1977, the program again became the blueprint for military modernization. [ ]

### Reforms

The reforms have already begun to change the way the PLA looks and operates and reflect Beijing's commitment to a more professional, less political military. The political influence of the PLA has steadily declined since its high point in the early and mid-1970s. Last year, for example, the PLA began to turn over many of its internal security duties to the newly created People's Armed Police under the Ministry of State Security. The General Staff has designated special PLA training units to evaluate new combat tactics and has held large exercises over the past two years to test combined arms operations. The services have reopened military schools and are raising entrance requirements to get higher quality people and establishing lower maximum age requirements for line officers. Moreover, there is a move afoot to reinstate military ranks—possibly as early as 1984 or 1985. This will improve discipline and morale, and add to the new professional image of the PLA. Finally, in 1980 the PLA began to clean out its ranks with the goal of trimming as many as a million troops—mostly from service and support units.<sup>2</sup> [ ]

### Weapons

The Chinese are also making headway in the more difficult task of improving the PLA's weapons and equipment. Since 1980, they have begun production of newer weapons, have made progress in longstanding developmental programs, and initiated work on more advanced weapon systems. Although most of these programs involve systems more than a decade behind those fielded by Western and Soviet forces, they are new for the Chinese military, which has had to depend on even older equipment. [ ]

The steadily improving pace of weapons programs for the PLA indicates that Beijing is firmly behind the defense modernization program despite the extensive resources that developing and fielding new military equipment require. In fact, the professionalization, training, and streamlining of the PLA assume the introduction of better equipment. Moreover, to guard against a drop in morale and to minimize complaints from the PLA—still a force in Chinese politics—Beijing needs to follow administrative reform with solid evidence of its commitment to rearm the military, even if only incrementally. [ ]

### The Emphasis on New and Improved Weapons

A panoply of new or improved conventional weapons has begun to emerge from China's research and production industries. [ ]

[ ] The occasional surprises in Chinese weapons programs are reminders that we will learn of some new weapons only when they are tested or deployed. The trends of the modernization program include:

- Giving the ground forces, by far the largest service arm, the highest priority for equipment modernization, with the air and naval forces not far behind.
- Acquiring weapons to supplement or improve older equipment rather than replacing large, expensive systems on a one-for-one basis.
- Rather than giving the PLA a capability to project power, the thrust of the armaments program appears essentially defensive, keyed to specific threats to China's borders.

Despite an expanded effort to acquire new weapons, the Chinese still experience considerable delays in moving a weapon from development to deployment. [ ]

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**The Ground Forces**

Chinese military officials have acknowledged [redacted] that the ground forces rank first in the lineup for more modern weapons and equipment. The officials cite the need to counter Soviet weaponry deployed along the border as the prime reason for that priority. The political power of the ground forces, however, is almost certainly another important factor. [redacted]

Clearly, the Army needs newer weapons and equipment to improve its capabilities against the relatively well-equipped ground and air forces of the Soviet Union. All 50 Soviet ground force divisions along the border are highly mobile, heavily armored, and have substantial firepower. The Soviets also have modern ground attack fighters and attack helicopters opposite China. According to Chinese Army officers, it is the Soviet threat that has led to putting the focus of ground force modernization on improving armor and mobility, and acquiring antiarmor and air defense systems. [redacted]

Newer weapons are also needed to accord with China's changing defense tactics. Beijing recognizes that the speed of advance and massive firepower of Soviet forces require a more aggressive defense than the "luring-in-deep" strategy of Mao Zedong. The new concept has units meeting an invasion farther forward. We believe that such troops would require a new arsenal of lightweight antitank and antiaircraft systems with enough firepower to destroy heavily armored vehicles and low-flying, high-performance aircraft. They also need additional tanks, armored personnel carriers, and self-propelled guns to provide greater firepower and better protection. [redacted]

**Armor and Mechanization.** Last year Beijing began producing a new tank designated the Type 69 (see figure 1). It is an improved version of the Type 59 and incorporates features common to tanks of the 1960s, most notably the Soviet T-62. [redacted]

[redacted] it has a more powerful engine, better capabilities for firing on the move, improved radios and aiming devices, and night vision equipment. The export version—Iraq has ordered 2,000—has fender

skirts for added protection, a first for Chinese tanks. The domestic model has a larger gun (probably 105-mm instead of 100-mm) with a smooth bore that can fire modern fin-stabilized ammunition. [redacted]

Deployment of Type 69s in China has been limited so far. [redacted] only a few units in the north have them. This is presumably because of the export contract with Iraq, but Beijing may be awaiting further improvements on the tank before building it in large numbers for the PLA. China's contacts with Western tank manufacturers indicate that it is seeking ways to improve armor protection and the armor penetration of the tank's main gun. [redacted]

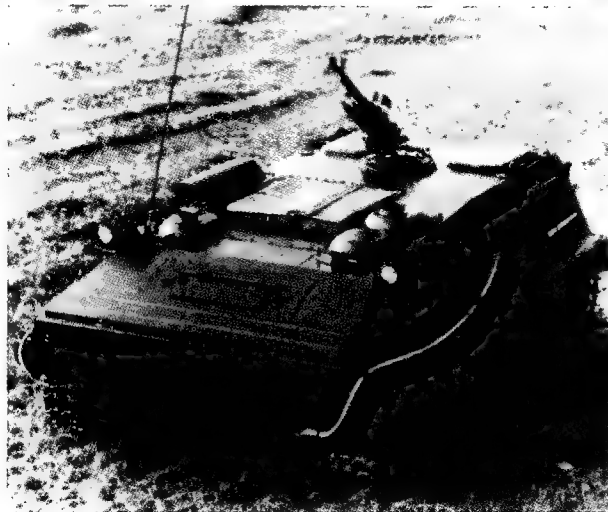
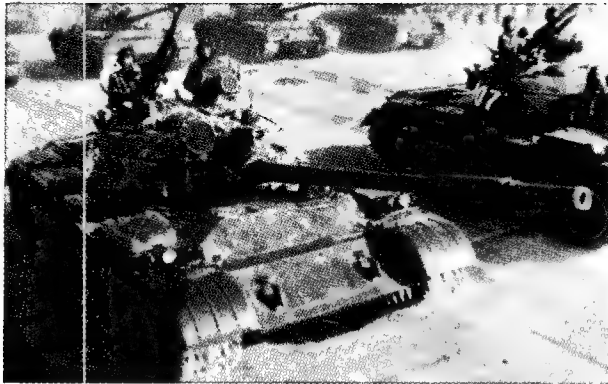
A new armored vehicle designed to improve battlefield repair of tanks also entered production last year. [redacted] this armored recovery vehicle has a crane, which older vehicles lack, permitting removal of tank engines, and possibly turrets, in the field. Like the Type 69-tank, this vehicle is being exported to Iraq with fender skirts and a camouflage paint scheme. [redacted]

Other tracked vehicles in production and under development are intended to increase the mobility of infantry units. Unlike the Soviet counterpart, Chinese infantry has little ability to move rapidly across open terrain or under enemy fire because troops must move on foot and artillery weapons must be towed into position. To correct this deficiency Beijing is:

- Adding M-1967 armored personnel carriers (APCs) to units in the northeast. So far each of six infantry and tank divisions has received a regiment of 150 tracked APCs, which will enable troops to keep pace with tanks in an assault.
- Assigning new tracked multiple rocket launchers to infantry units. Utilizing the APC chassis, these 130-mm rockets constitute a highly mobile fire support weapon.

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**Figure 1. Selected Chinese Armor and Artillery**  
Clockwise from upper left: Type-69 tank, Type-69-II tank (export version), M-1967 armored personnel carrier, tracked 130-mm multiple rocket launcher.

Liberation Army Pictorial

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deploy along their border with China. Attache reporting indicates that production has been slow, but that the Chinese have equipped at least 12 antitank companies in the northeast with the Hongjian 73. Recent published photographs of training with the missile in the defense of beaches suggest that deployment is more widespread. Chinese industry officials have stated that a more advanced antitank guided missile is under development.

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**Antitank Systems.** China has begun fielding its first antitank guided missile, the Hongjian 73. It is a copy of the Soviet Sagger and can defeat the conventional armor of Soviet T-62 tanks but is less capable against the T-72, which the Soviets have recently begun to

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The infantry is also receiving a new lightweight antiarmor rocket designated the Type 70-1. This short-range weapon is designed as a tank-killing system for the individual soldier, who can easily carry a load of three rockets. The Chinese claim that at 150 meters the 62-mm rocket can pierce the armor of the T-62 tank, except for the turret, and the side armor of the T-72. Used in conjunction with the longer range (500 to 3,000 meters) Hongjian 73 missile, this rocket will give units a layered defense against armored assaults. [redacted]

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**Air Defense Systems.** The Chinese are also working to provide the ground forces with better air defense weapons:

- [redacted] a copy of the Soviet SA-7 surface-to-air missile is being produced in limited numbers. This short-range SAM can be transported by individual troops in the field and will provide units with an effective defense against low-flying aircraft and helicopters (see figure 3).

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**Figure 2. China's New Antitank Weapons** Liberation Army Pictorial  
top photo: Hongjian 73 antitank guided missile,  
bottom photo: Type-70-1 antitank rocket system.



#### **Air Force Weapons**

Fighters and their avionics and weapon systems are the primary areas of Air Force modernization. The technical sophistication of modern air combat equipment so far has impeded rapid development of new

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*Figure 3. China is producing a copy of this Soviet SA-7 shoulder-fired SAM.*

Soviet Military Power

and advanced weaponry for the Chinese Air Force. Nevertheless, Beijing recognizes that it needs to update and eventually replace its large but rapidly aging fleet of MIG-17 and MIG-19 fighters and has authorized several developmental and production programs that appear to have high priority. At the same time it is forging ahead with programs to improve military air transport and bomber capabilities.

**Fighters.** Last year Beijing gave the go-ahead for production of the F-8 fighter—a delta-wing aircraft that is larger than the MIG-21 on which it is based—and by year's end eight had been delivered to an air defense unit in the northeast for operational evaluation. Development of the fighter (it can fly higher, faster, and farther than any other Chinese fighter) began in the mid-1960s, probably to counter the prevalent threat of attack by supersonic aircraft approaching at high altitudes. With the advent of sophisticated terrain-following radars that allow US

and Soviet fighters and bombers to attack at low altitudes and thus avoid detection, the utility of the F-8 in its present configuration has diminished. The Chinese probably intend to deploy only 50 to 60 of the early model F-8s while continuing developmental efforts to make the aircraft more versatile.

Beijing seems far more satisfied with the F-7 (China's version of the MIG-21), and over the past year it has increased production for both domestic and foreign markets. This year China has already delivered some 30 to 40 F-7s to units on the Sino-Soviet and Sino-Vietnam borders and has contracts to deliver a total of about 150 F-7s to Egypt and Iraq.

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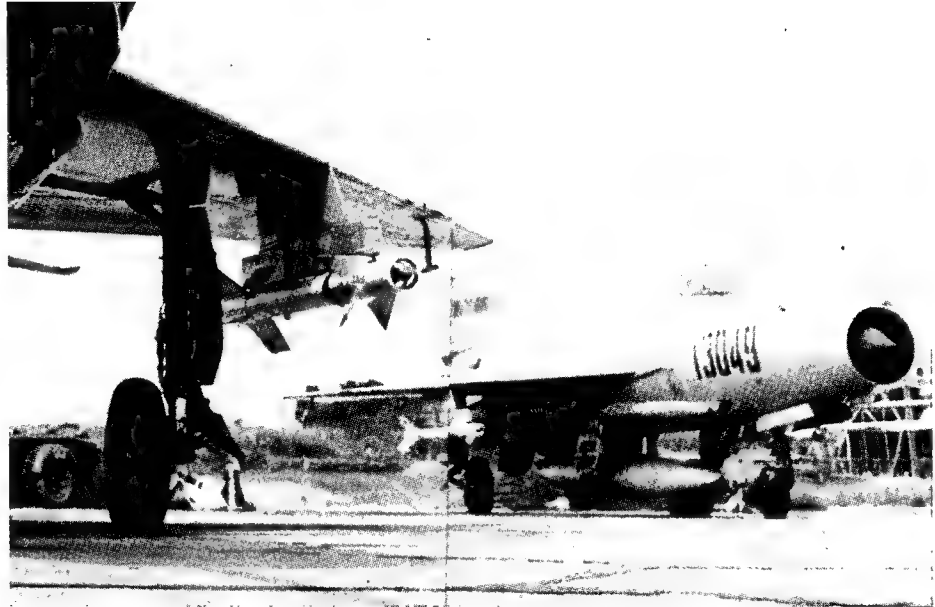
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**Figure 5. Chinese F-7 (MIG-21) fighters equipped with the PL-2 air-to-air missile.** [redacted]



[redacted] China evidently concluded a deal last year with the British for modernizing the F-7 with avionics that enhance navigation and air combat capabilities. [redacted]

[redacted] the Chinese are seeking to upgrade the F-7 with a modern US fighter engine—a downrated version of the F-100 engine used in F-15 and F-16 fighters—suggests that they intend to produce advanced versions of the fighter for several years to come. [redacted]

[redacted] China acquired copies of Soviet MIG-23 fighters from Egypt and US F-5 fighters from Vietnam that it undoubtedly has exploited. [redacted] Chinese engineers are still having problems developing modern fighter engines or airframes. The Chinese have been unable to find a suitable airframe for the British Spey jet engine even though they had learned to assemble the Spey by 1980. [redacted]

**Air-to-Air Missiles.** The Chinese have an ambitious program to equip their fighters with modern air-to-air missiles (AAMs). Although they acquired a few AAMs from the Soviets in the early 1960s, it took them about 15 years to develop and produce their own

AAM, the PL-2. [redacted] it is a copy of the US Sidewinder or the Soviet Atoll heat-seeking missile; [redacted] it is now widely deployed with air defense units. [redacted]

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**Bombers and Transport Aircraft.** The Air Force apparently intends to utilize the B-6 bomber (copy of the Soviet TU-16) for many more years. Production of this medium-range aircraft continues at a steady rate. [redacted]

[redacted] the Chinese are modifying some models. One version for the Navy is being equipped to use an air-to-surface missile against ships. [redacted]

Transport aviation will benefit from the Y-8 aircraft that entered serial production last year. This medium transport is a copy of the Soviet AN-12, a few of which China purchased in the late 1960s. [redacted]

[redacted] they will add considerably to the PLA's troop and cargo lift capability. The Y-8 can carry some 60 paratroops or 20,000 kilograms of cargo, more than double the capacity of China's next largest military transport aircraft, the Soviet-built AN-26. [redacted]

#### **Navy Modernization**

Developments in naval weapons indicate that China's naval modernization program currently is focused on three areas: improvements to submarine warfare capabilities, development of a more sophisticated anti-submarine warfare defense, and upgrading weapons deployed on surface combatants. Low production rates of most major combatants suggest that Beijing is unlikely to deploy additional ships using older designs. Instead, Beijing is refitting existing ships and submarines with modern equipment. [redacted]

**Submarine Developments.** Beijing is constructing additional Han nuclear attack submarines. [redacted]

The nuclear-powered Hans provide the Navy with the ability to deploy submarines for longer periods of time farther from the coast. China's fleet of some 100

conventionally powered submarines are limited to a maximum of 40 days on patrol without refueling and can operate submerged for only limited durations on batteries. [redacted]

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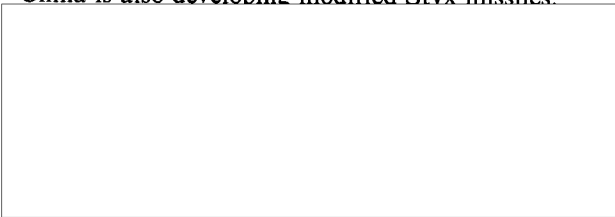
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**New Weapons for Surface Combatants.** The Chinese have modified a patrol boat to carry four antiship missiles similar to the French Exocet [redacted]. The modified boat with four launch canisters was first seen by a military attache in Shanghai last year. A missile like the Exocet would give the Chinese several advantages over their widely deployed Styx missiles. The Exocet is a sea-skimming missile difficult to detect and defeat, its solid fuel is safer to handle than the volatile liquids of the Styx, and a Chinese boat can carry twice as many Exocets as Styx. [redacted]

China is also developing modified Styx missiles:

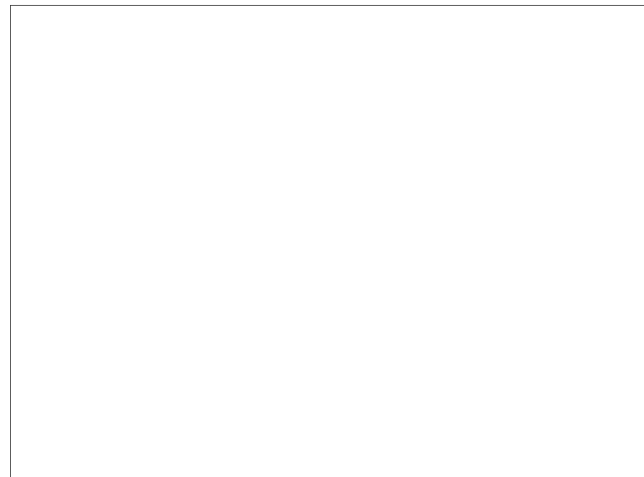
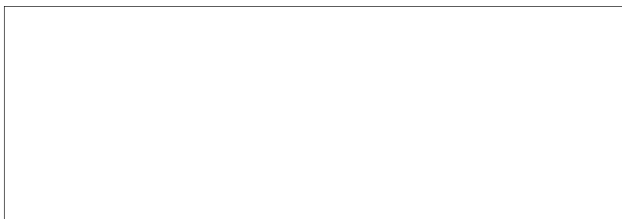


**Air Defense Weapons.** The Navy is trying to overcome deficiencies in air defense by developing a surface-to-air missile and newer anti-aircraft guns. The missile, designated CSA-NX-1, is undergoing testing. It is identical to the mobile landbased SAM being developed for the ground forces. China's new frigates are being fitted with additional large-calibre anti-aircraft guns and may also receive the new air defense missile.



**Plans for New Ships.** China is considering development of several new surface combatants:

- A new frigate using American and West German engines. The Chinese indicate that they plan to build 10 to 20 of the ships.
- Air cushion vehicles, the most promising of which is a personnel landing craft with ramps in the bow and stern.



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### Weapon Modernization in Perspective

The newer weapons becoming available to the PLA attest to the progress China is making in replacing or improving its vintage inventory. For example, as recently as five years ago, the PLA's only tactical missile in production was the Styx antiship missile, a 1950s system acquired from the Soviets. The new guided missiles the PLA is getting will enable troops to damage or destroy tanks and low-flying aircraft and give fighter pilots better means for downing aircraft. And prospects are good for fielding other and better missiles soon. Overall, China's new weapons are taking the PLA away from complete reliance on systems discarded or rapidly disappearing from the arsenals of Western and Soviet forces, and they are leading the PLA toward warfighting capabilities that stress speed, mobility, quick reaction, and endurance.



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Still, modernization has come grudgingly, and the PLA's newer weapons are just one step ahead of those being replaced and are far behind capabilities of potential adversaries. The Chinese Sagger antitank missile must be guided to the target by a soldier operating a control stick at the point of launch. Later generation antitank missiles now being fielded by Western and Soviet forces are much less susceptible to human error. They require only that the firer maintain his sights on the target or, as in the case of

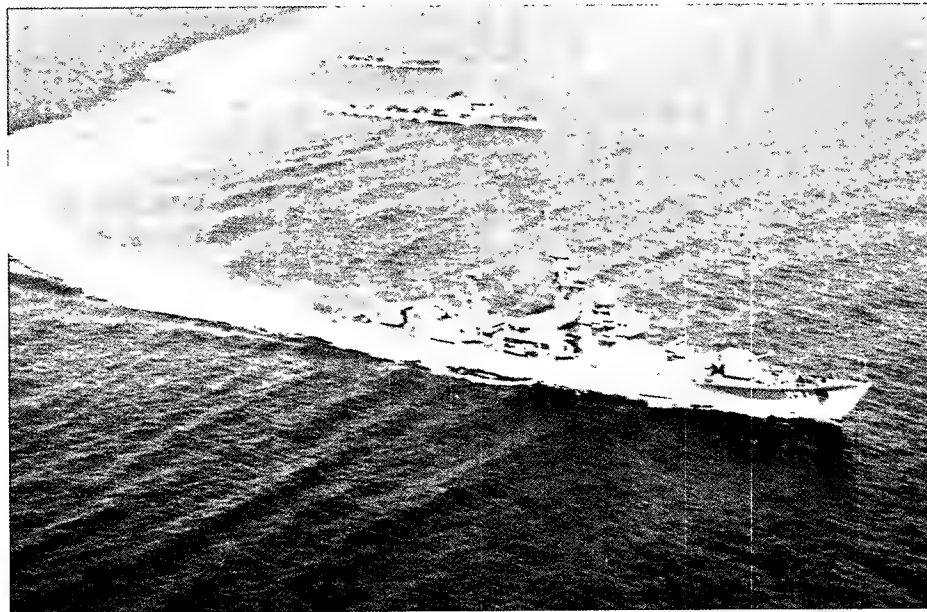
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*Figure 10. This Jiangdong-class frigate is the only Chinese warship that has launchers for a surface-to-air missile, the CSA-NX-1.*



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Military Technology

the US Hellfire missile, that the target be continuously illuminated by a laser beam. Similarly, such weapons as China's latest model tank, its new F-8 fighter, its deployed air-to-air missile, and nuclear-powered attack submarines represent technology no later than weapons in service in the mid-1960s in the United States.

China's newer equipment is only beginning to enter the forces, which remain bound to large inventories of effective but older systems. The Air Force has 2,600 MIG-19s (mid-1950s technology) but less than 200 MIG-21s, and only eight F-8 fighters have been

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delivered to a unit so far. Although a few infantry units have received regiments of armored personnel carriers, the vast majority of soldiers must maneuver on the battlefield on foot. The Navy's lack of modern air defenses for its warships confines it to operations within range of land-based aircraft. Nevertheless, by upgrading equipment and developing small and relatively inexpensive weapons, China can prolong the service life of its older, larger weapon systems.

The speed of modernization is in large measure governed by the development and production process, which will improve as China expands its base of experience and technology. New weapons have languished for years in development, and production of more sophisticated items often suffers from problems in quality control.

In comparison with similar Soviet and US programs, Chinese weapons can take twice as long to get from the drawing board into the field.

### Implications

#### For Self-Sufficiency

The success of China's defense industry in turning out more modern weapons and equipment will encourage those in Beijing who argue for self-sufficiency in defense modernization. Soon after taking office late last year, Defense Minister Zhang Aiping, the most outspoken public proponent of self-sufficiency, stated that defense modernization must be tailored to China's specific conditions and capabilities. And in a major speech on the subject last March, he emphatically reiterated that theme, noting that "buying arms from abroad is unrealistic." In the following weeks he reportedly canceled a major arms contract with the British for naval defensive missiles and other equipment for use on destroyers. During the Sixth National People's Congress in June, Chief of the General Staff Yang Dezhi proclaimed that "We will rely mainly on

our own efforts to improve our weaponry and equipment." The strong support for that sentiment makes it extremely unlikely that China will purchase major military weapon systems from abroad.

On the other hand, the Chinese still want advanced weapon technology to help speed up programs and to overcome problems. They continue to contact Western arms manufacturers to discuss modern military hardware and obtain insights into research and production procedures. Moreover, Beijing is negotiating for the production rights to modern artillery from Belgium, has signed an air-to-air missile consultancy with a British firm, and is negotiating with a US aircraft company for assistance in modernizing the Y-8 military transport that just entered production. The Chinese also are showing strong interest in obtaining production rights for an advanced US fighter engine.

The continual improvement of China's military research and production know-how is also enabling it to experiment with reverse engineering of copies of weapons obtained from third countries.

officials of China's defense industry are active in overt and covert attempts to acquire advance technology.

#### For the Defense Budget

China apparently plans no immediate increase in the level of defense spending for weapon modernization. In fact, according to published official figures, defense allocations from the State budget dropped in

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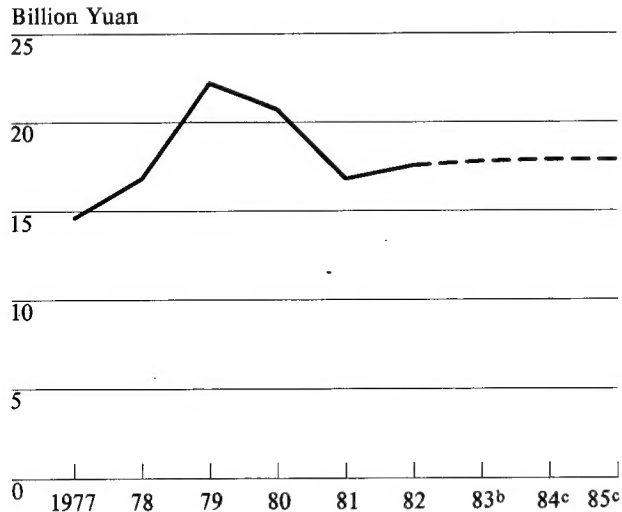
1981 from record highs in 1979 (to pay for the invasion of Vietnam) and 1980 and declined as a percentage of overall national spending. Projections for the Sixth Five-Year Plan (1981-85) suggest that defense expenditures will hold at the current levels through at least 1985. (See figure 11.)

The leadership of the PLA publicly supports the current level of defense outlays and appears to accept the argument that the development of the civilian economy must receive priority. In a recent article on defense modernization, Defense Minister Zhang Aiping quoted Deng Xiaoping as saying, "We must improve our military equipment and speed modernization of our defenses on the basis of continuous development of our national economy." All of the PLA's department heads have endorsed this course with similar public statements in the past few months. Yang Dezhi told PLA deputies at the recently concluded Sixth National People's Congress that "army building" must be subordinated to national economic construction as a "part must subordinate itself to the whole."

Cost-cutting measures and a new source of revenue for defense—exporting arms to the Third World—are enabling the PLA to sustain the modernization effort within the confines of its current budget:

- Since 1979 the services have sharply cut procurement of older aircraft, tanks, and main naval combatants (see table). In previous years procurement of those systems represented as much as 40 percent of defense spending. The savings will allow adequate procurement rates of the mostly small and less costly weapons slated for the forces. Expensive weapon systems, such as the F-8 fighter, are being fielded at a relatively slow pace.
- Demobilization—as many as 20 percent of the PLA—is resulting in savings in payroll and housing costs. In addition, units have been ordered to cut costs by conserving fuel, limiting travel, and producing more of their own foodstuffs.
- New revenues for the defense sector are almost certainly accruing from the sale of arms abroad. Since beginning a concerted program of arms exports in 1980, Beijing has registered sales of over

**Figure 11**  
**China: Announced Defense Budgets<sup>a</sup>**



<sup>a</sup> China's announced budget reflects the overall trends but not the full extent of its defense spending. CIA uses a computer to aggregate defense costs, and our estimates of actual annual military expenditures are approximately twice as large as the announced figures.

<sup>b</sup> Projected.  
<sup>c</sup> Estimated.

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\$4 billion. Moreover, defense plants now use excess production capacity to produce consumer items for both domestic and foreign markets. We believe a portion of the profits from those measures will be used to support weapon research and development and help modernize defense plants.

#### For the Soviet Threat

Although new weapons are deployed first to units opposing Soviet forces, they are not appreciably closing the gap between Chinese and Soviet capabilities. The modernization of Soviet forces in the Far East is likely to outpace China's relatively modest efforts for the foreseeable future. We believe China will continue

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**Cutbacks in Procurement of Old Weapons**

Weapons	1979	1980	1981	1982
F-6 (MIG-19) fighters	150	120	20	20
B-5 (IL-28) bombers	40	30	0	0
Type 59 tanks	600	500	300	0
Major naval combatants	12	6	3	7

to rely on its small force of nuclear missiles and a combination of terrain and a strategy of defense in depth to deter the Soviets. The new weapons would be intended to raise the cost to Soviet forces attacking along traditional invasion corridors.

**For Taiwan**

Because China still lacks sufficient amphibious lift capability to take Taiwan by force, the current level of modernization will have little impact on the strategic balance in the Strait. Earlier CIA studies have concluded that China would need to build 70 to 100 tank landing ships to pose a real invasion threat. A program of that magnitude would take at least five years and would be easily detected long in advance.

The modernization effort, we believe, will enable Chinese air and naval forces to improve their capabilities by the early-to-mid-1990s (when systems now in research and testing are likely to be fielded in force) against weapons currently in Taiwan's inventory. Taipei, however, could overcome PRC advances by acquiring appropriate defensive weapons:

- The anticipated deployment of new Chinese fighters and AAMs will give the Air Force a qualitative as well as a quantitative advantage in the air balance. Taiwan, however, probably will retain its advantages in command and control and pilot training.
- New Chinese air-, ship-, and submarine-launched antiship missiles would present an increased threat to Taiwan's naval forces operating in the Taiwan Strait.

- China's improving force of diesel and nuclear submarines will add to the Navy's capability to blockade Taiwan's major ports and islands and tax its limited capabilities for antisubmarine warfare.

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**Prospects**

China's recent success in fielding new weapons and expanding its technology base suggests that for the foreseeable future there will be steady growth in the number of products from the military research and production facilities. Technological limitations will persist, however, and continued high priority for strategic systems will prevent any rapid acceleration in modernization of the conventional forces. In the next few years, we believe the Chinese will:

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- Deploy the new tactical SAM system with ground force units and on naval ships, field the Army's new self-propelled gun, and deliver the air-launched antiship missiles to the naval air force.
- Begin trial production of a radar-guided AAM and undertake advanced development of the Navy's submarine that carries antiship missiles and of an improved antitank missile for the Army.
- Initiate testing of a more advanced copy of the F-8 fighter and a follow-on fighter, of a self-propelled antiaircraft system for the Army, and of an improved, Exocet-type antiship missile for the Navy.

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**Longer Term Defense Spending**

China almost certainly will need to increase the military budget substantially in the Seventh Five-Year Plan (1986-90) to procure weapons now in the pipeline. For the time being, the lack of suitable follow-ons to the PLA's most expensive weapon systems (aircraft, armor, and major naval combatants) will obviate a call for greater defense spending. Moreover, the PLA leadership's apparent acceptance

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of current spending levels in expectation of reaping benefits from overall economic improvement should help to prevent the military budget from becoming a major area of contention through 1985. After that time, however, the increasing number of more advanced weapon systems available to the military will raise requirements for military spending, and we expect the PLA will increasingly lobby for higher defense allocations if the economic outlook improves.

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#### Arms Sales

We believe Beijing will attempt to expand on its success in the world's arms market to gain more foreign exchange, political influence, and access to foreign weapons. China has a reputation of supplying inexpensive and reliable weapons on relatively short notice, and its new line of weapons is likely to attract new customers among the less developed countries. Beijing may be able to exchange its new weapons for samples of later generation weapons or to entice nations not traditionally buyers of Chinese arms into an arms relationship and possibly greater political ties. For example, Beijing for the first time is training pilots from Zimbabwe, which is now looking to China as a source of weapons.

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Its new military products will certainly stimulate interest in new purchases among China's traditional customers. The Chinese have lost numerous sales opportunities because they lacked more sophisticated arms.

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#### Technology Acquisition

We expect China to continue aggressively seeking production technology that will allow the defense industries to leapfrog ahead and shorten leadtimes for the acquisition of more modern weapons. Because of prohibitive costs, the Chinese almost certainly will not place large orders for advanced weapons. But Beijing will seek to buy, or acquire covertly, samples of foreign weapons and their production technology and equipment. Its preference for American equipment notwithstanding, China is unlikely to accept older technology items or agree to deals for production technology that require purchase of large numbers of finished products.

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